globus online

Globus Online
Reliable File Transfer. No IT Required.

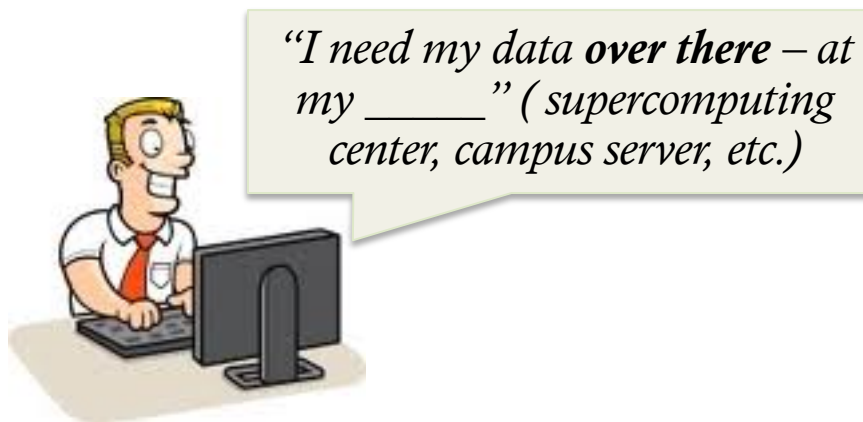October 5, 2011

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- ## What should be trivial…

*"I need my data **over there** – at my _____" (supercomputing center, campus server, etc.)*

Data Source

Data Destination

- ## … can be painfully tedious and time-consuming

"GAAAH! %&@#&"

Data Source

! Config issues

! Firewall issues

! Unexpected failure = manual retry

Data Destination

What is Globus Online?

- **Reliable file transfer.**
  - Easy "fire and forget" file transfers
  - Automatic fault recovery
  - High performance
  - Across multiple security domains

- **No IT required.**
  - Software as a Service (SaaS)
  - No client software installation
  - New features automatically available
  - Consolidated support and troubleshooting
  - Works with existing GridFTP servers
  - Globus Connect solves "last mile problem"

- **Initial implementation of XUAS (XSEDE User Access Services)**

"I moved 400 GB of files and didn't even have to think about it."

- *Lawrence Berkeley National Lab*

"It's just not a big deal to move big data anymore."

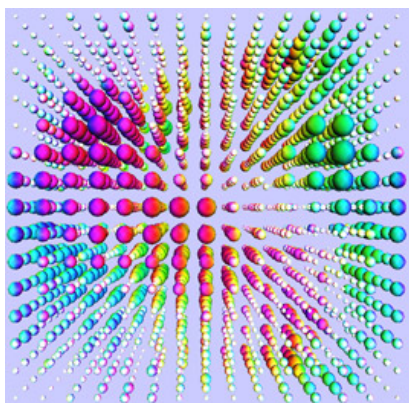- *Initiative for Biomedical Informatics*

"Fantastic! I have started using globus connect to transfer data, and it only took me 5 minutes to set up. Thank you!"

- *NERSC user*

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Case Study: Lattice QCD

- **Fast**: Reduced transfer times
- **Easy**: Fire-and-forget transfers
  - Automated retry
  - No file pre-staging
  - No complex infrastructure
  - Convenient CLI or GUI interfaces

Indiana University researcher moved ~6 TB from Oak Ridge to TACC in 2 days

"Globus Online frees up my time to do more creative work than typing scp commands or devising scripts to initiate and monitor progress to move many files."

"I moved 100 7.3 GB files tonight in about 1.5 hours. I am very impressed. I also like the new commands and help system."

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- **Challenge**
  - *"We need to provide web-based ways to accomplish computing tasks – it's what our scientists expect. and it will make them more productive."*

- **Solution**
  - Globus Online endpoints maintained by NERSC
  - GO = recommended transfer method

- **Benefits for NERSC users**
  - Drag and drop archiving
  - Easy to use
  - Users can focus on their research (not on IT)

- **Benefits for NERSC**
  - Operations and support outsourced to GO
  - Fast and easy to make endpoints available
  - Automated authentication
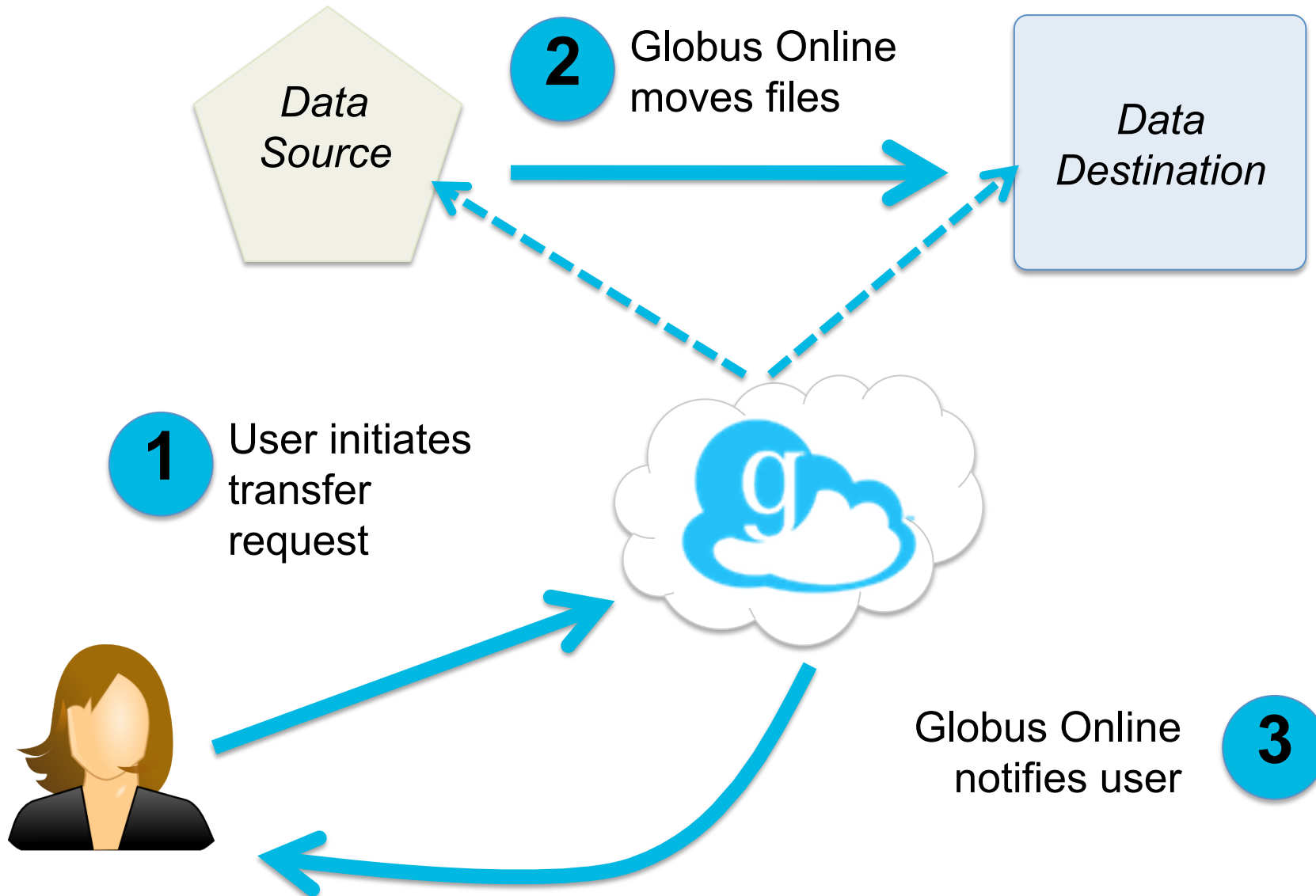 - Reliable performance and support

"Fantastic! I have already started using Globus Connect to transfer data, and it only took me 5 minutes to set up. Thank you!" – NERSC user

Hopper, Franklin and HPSS are among the NERSC resources leveraged by Globus Online.
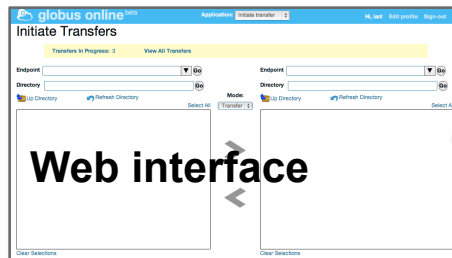
How It Works

2 Globus Online moves files

Data Source

Data Destination

1 User initiates transfer request

3 Globus Online notifies user

Globus Online Interface

Web interface

HTTP REST interface
POST https://transfer.api.
globusonline.org/ v0.10/
transfer <transfer-doc>

Command line interface
ls alcf#dtn:~
scp alcf#dtn:~/myfile \
    nersc#dtn:~/myfile

(Hosted on)
amazon
webservices™

GridFTP servers
FTP servers

Globus Connect
Multi-User

ESnet
data transfer nodes

Globus Connect
on local computers

globus online

Demo

Logging into the CLI

- Interactive login to command line interface:

```
$ ssh tuecke@cli.globusonline.org
```

- Running commands remotely:

```
$ ssh tuecke@cli.globusonline.org <command>
```

```
$ ssh tuecke@cli.globusonline.org scp –r –s 3 -D
olcf#/~/myfile* mylaptop:/~/projects/p1
Task ID: 4a3c471e-edef-11df-aa30-1231350018b1
$ _
```

- Using CLI with gsissh:

```
$ gsissh tuecke@cli.globusonline.org <command>
```

Coming this Fall to GO-Transfer

- **Web GUI improvements**
  - Set transfer sync level, deadline, label
  - Endpoint CRUD

- **Endpoint Partner Program**
  - Globus Connect Multi-User (currently in beta)
  - Simplified user sign-up for partners
  - Flight Control for endpoint owners

For More Information

- **Visit https://www.globusonline.org/signup to:**
  - Get a free account and start moving files

- **Visit www.globusonline.org for:**
  - Tutorials
  - FAQs
  - Pro Tips
  - Troubleshooting

- **Contact support@globusonline.org for:**
  - Help getting started
  - Help using the service